

Our Docket No.: 42P13008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Chang

Application No.: 10/022,760

Filed: December 14, 2001

For: Use of Adjusted Evaporator Section  
Area of Heat Pipe that is Sized to Match  
the Surface Area of an Integrated Heat  
Spreader Used in CPU Packages in  
Mobile Computers

Examiner: Patel, Nhir B.

Art Group: 3743

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR 1.131 IN SUPPORT OF PRIOR INVENTION**

Sir :

We, Je Young Chang and Eric DiStefano, declare:

1. We are inventors of the claims of the above-captioned patent application ("the Application") and inventors of the subject matter described therein.
2. Prior to September 19, 2001, the filing date of U.S. Patent No. 6,504,720 cited in an Office Action mailed January 24, 2006, the invention claimed in the Application had been conceived and reduced to practice in the United States.

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Declaration Under Rule 1.131  
in Support of Application  
Application No. 10/022,760

3. Attached Exhibit A is a redacted copy of an invention disclosure form describing the design of the Use of Adjusted Evaporator Section Area of Heat Pipe That is Sized to Match the Surface Area of an Integrated Heat Spreader Used in CPU Packages in Mobile Computers, and establishes that the subject matter claimed in the Application had been reduced to practice in the United States prior to September 19, 2001.
4. Exhibit A (the invention disclosure) describes the apparatus of a heat pipe with an adjusted evaporator section area that is sized to match the surface area of an integrated hear spreader, as is described and claimed in our application. More specifically, the figure on page 4 of Exhibit A illustrates the features of claim 1. The feature of "an absorber section of a heat pipe attached to a first end of a base of the heat pipe to remove heat from a heat spreader, wherein the absorber section having a size of at least a surface area of the heat spreader" is shown in the bottom figure (b) and described as the "heat pipe with graded evaporator section covering the whol IHS [integrated heat spreader] area." The features of "a dissipater section of the heat pipe attached to a second end of the base of the heat pipe, wherein a width of the dissipater section is greater than a width of the base of the heat pipe, and the dissipater section having a size of at least a surface area of the absorber section" and "a plurality of fins formed of the second end of the base, the plurality of fins attached to a bottom surface of the dissipater section, the fins having a length equal to the width of the base" are shown in the first figure (a) as the "condenser region with a heat exchanger." Further support for these features is found at page 3, point 1, where it is stated that "different HP widths are proposed between the evaporator region and the other section of the heat pipes."

5. The subject matter claimed in the application  
prior to September 19, 2001 because the term  
successfully implemented before this date, as in  
where it is stated that simulation had been

to practice  
that A had been  
in Exhibit A,

We further declare that all statements made here  
and that all statements made on information and belief  
that these statements are made with the knowledge that  
like so made are punishable by fine or imprisonment  
18 of the United States Code, and that such willful  
validity of the application of any patent issuing there

knowledge are true  
true; and further  
statements and the  
1001 of Title  
hazardize the

Dated: \_\_\_\_\_, 2006

Je Yong

Dated: 3/23, 2006

Eric D.

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